

REMARKS

By this amendment, claims 1-21 are pending, in which claims 1, 9, 16, and 21 are currently amended, and no claims are canceled, withdrawn, or newly presented. No new matter is introduced.

The final Office Action mailed October 7, 2005 rejected claims 1-21 under 35 U.S.C. § 102(b) as anticipated by *Seid et al.* (U.S. 5,768,271). Applicant respectfully traverses the rejection of all claims, as the reference fails to disclose the features recited by the claims.

In the interest of advancing prosecution, Applicant has amended independent claims 1, 9, 16, and 21.

For example, amended independent claim 1 recites, “one or more egress boundary routers having connections to an access network including the access link, wherein said one or more egress boundary routers transmit intra-VPN traffic toward the destination host from sources within the VPN within a first access network logical connection for intra-VPN traffic and all extra-VPN traffic toward the destination host from sources outside the VPN within a second access network logical connection for extra-VPN traffic, separate from the first access network logical connection.” Amended independent claim 9 recites, “one or more egress boundary routers having connections to the access network, wherein said one or more egress boundary routers transmit intra-VPN traffic toward the destination host via the first logical connection and all extra-VPN traffic toward the destination host via the second logical connection.” Amended independent claim 16 recites, “transmitting intra-VPN traffic from said one or more egress boundary routers toward the destination host via the first logical connection, and transmitting all extra-VPN traffic from said one or more egress boundary routers toward the destination host via the second logical connection.” Amended independent claim 21 recites, “transmitting the intra-VPN traffic from one or more egress boundary routers toward the destination host via a first

logical connection, and transmitting all extra-VPN traffic from said one or more egress boundary routers toward the destination host via a second logical connection.”

In stark contrast, *Seid et al.* (per Abstract) is directed to congestion control in a network. Each virtual path (VP) in the network is allocated a positive guaranteed bandwidth (VP-CIR), and each virtual circuit (VC) on a VP is also allocated a bandwidth (VC-CIR) greater than or equal to zero. Packets of information to be transmitted over a VC are provided with a unique address field to identify the VCs and VPs associated with the VPN over which the packet of information will travel. Congestion control of the network is provided such that congestion control and management are carried out on a per VPN basis, and congestion outside of a VPN’s logical domain does not affect the performance of the VPN.

In its rejection of claim 1, the Office Action (p. 5, item 4) cites Figs. 1-3, Figure 7, col. 4: 1-10, and col. 2: 56 – col. 3: 15 as disclosing the features recited by claim 1. However, Figure 7 is a block diagram showing the switching of virtual circuits within a node of the frame relay (FR) network of *Seid et al.* (in roles of FR connection switch, VP cross-connect, or VC switch, *see, e.g.,* col. 8: 13-18). In *Seid et al.*’s discussion of Figure 7, an “**ingress port** connection table” of a node of the FR network is shown at col. 8: 30-41, illustrating switching of VPs, thus illustrating *ingress and egress* ports with respect to a node in the network generally. (*See, e.g.,* col. 8: 13-57) There is no mention of “one or more egress boundary routers having connections to an access network including the access link, wherein said one or more egress boundary routers transmit intra-VPN traffic toward the destination host from sources within the VPN within a first access network logical connection for intra-VPN traffic and all extra-VPN traffic toward the destination host from sources outside the VPN within a second access network logical connection for extra-VPN traffic, separate from the first access network logical connection,” as recited by amended independent claim 1. Moreover, there is no mention of any **boundary routers**, much less “one

or more **egress boundary routers** having connections to an access network” including, as set forth in the preamble, the “**access link to a destination host belonging to a virtual private network**” as recited by claim 1. Further, there is no mention by *Seid et al.* of preventing “**denial of service attacks on said access link originating from sources outside the VPN**” as recited by claim 1.

The remaining cited portions of *Seid et al.* merely refer generally to providing a level of service for a VPN that is generally unperturbed by traffic generated by users outside of the VPN’s logical domain. Nowhere does *Seid et al.* disclose or suggest “a network system that **resists denial of service attacks on an access link to a destination host belonging to a virtual private network (VPN)**, said network system comprising: one or more egress boundary routers having connections to an access network including the access link, wherein said one or more egress boundary routers **transmit intra-VPN traffic toward the destination host from sources within the VPN within a first access network logical connection for intra-VPN traffic and all extra-VPN traffic toward the destination host from sources outside the VPN within a second access network logical connection for extra-VPN traffic, separate from the first access network logical connection**” as recited by claim 1, nor does the Office Action contend that these specific features are disclosed by *Seid et al.* Thus, the rejection of claim 1 should be withdrawn.

For reasons similar to those stated previously with regard to claim 1, Applicant additionally submits that the rejection of independent claims 9, 16, and 21 should be withdrawn.

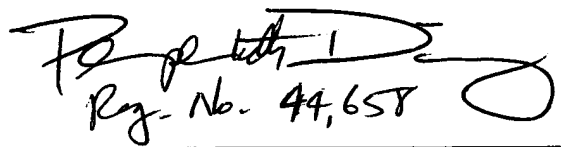
The rejection of dependent claims 2-8, 10-15, and 17-20 should be withdrawn for at least the same reasons as their respective independent claims, and these claims are separately patentable on their own merits.

Therefore, the present application, as amended, overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at (703) 425-8508 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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